Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A system to control an engine shutdown for a hybrid electric vehicle (HEV) wherein vehicle tailpipe and evaporative emissions are reduced, the system comprising:

at least one controller configured to control an engine shutdown routine, including controlling engine torque and controlling engine speed.

2. (currently amended) The system of claim 1, ~~comprising HEV engine shutdown controls to~~ wherein the engine shutdown routine further includes:

[[ramp]] ramping off fuel injectors;

~~control engine torque using an electronic throttle control;~~

~~control engine speed;~~

[[stop]] stopping firing of spark plugs by disabling ignition system;

[[stop]] stopping purge flow from a vapor management valve (VMV);

[[stop]] stopping exhaust gas recirculation (EGR) flow from an EGR valve; and

[[flush]] flushing an engine intake manifold of residual fuel once all sources of fuel (injectors, VMV, and EGR valve) are halted.

3. (original) The system of claim 2 further comprising an abort engine shutdown control if an engine is required to run again and fuel injector ramping has not yet begun.

4. (original) The system of claim 2 further comprising a power sustain control after the engine and vehicle are "keyed off" to allow a generator to continue to spin the engine (after injectors are shut off) whereby residual fuel is flushed from the engine intake manifold into engine cylinders to be combusted, and then on to a hot catalytic converter to have the resulting exhaust gas byproducts converted.

5. (currently amended) The system of claim 2 wherein ~~the control to ramp off~~ the fuel injectors ~~ramps the fuel injectors~~ are ramped off in a calibratable manner.

6. (original) The system of claim 2 wherein a spark control shuts off spark when engine speed is less than some calibratable level.

7. (original) The system of claim 5 wherein a fuel injector calibration turns all injectors off at once.

8. (original) The system of claim 5 wherein a fuel injector calibration turns one injector off at a time.

9. (original) The system of claim 5 wherein a fuel injector calibration turns two injectors off at a time.

10. (currently amended) A method to control an engine shutdown for a hybrid electric vehicle (HEV) comprising the [[step]] steps of:

~~reducing vehicle tailpipe and evaporative emissions~~

controlling engine torque; and

controlling engine speed.

11. (currently amended) The method of claim 10 further comprising the steps of:

ramping off fuel injectors;

~~controlling engine torque using an electronic throttle control;~~

~~controlling engine speed;~~

stopping the firing of spark plugs by disabling an ignition system;

stopping purge flow from a vapor management valve (VMV);

stopping exhaust gas recirculation (EGR) flow from an EGR valve; and

flushing an engine intake manifold of residual fuel after halting all sources of fuel in the fuel injectors, VMV, and EGR valve.

12. (original) The method of claim 11 further comprising the step of aborting the HEV engine shutdown if engine demand changes to require the engine to run again and fuel injector ramping has not yet begun.

13. (original) The method of claim 11 further comprising the step of sustaining power after "keying-off" the engine and vehicle to allow a generator to continue spinning the engine (after injectors are shut off) whereby residual fuel is flushed from the engine intake manifold into engine cylinders to be combusted, and then on to a hot catalytic converter to have the resulting exhaust gas byproducts converted.

14. (original) The method of claim 11 further comprising the step of shutting off spark when engine speed if less than a calibratable level.

15. (original) The method of claim 11 wherein ramping off fuel injectors is done in a calibratable manner.

16. (original) The method of claim 11 wherein ramping off fuel injectors turns all injectors off at once.

17. (original) The method of claim 15 wherein ramping off fuel injectors turns one injector off at a time.

18. (original) The method of claim 15 wherein ramping off fuel injectors turns two injectors off at a time.

19. (new) The method of claim 10, wherein the engine shutdown is controlled in two stages, the first stage including controlling engine torque and controlling engine speed.

20. (new) The system of claim 1, wherein the controller is configured to control engine shutdown in two stages, the first stage including controlling engine torque and controlling engine speed.